In Reply to USPTO Correspondence of December 30, 2008

Attorney Docket No. 3274-060290

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): A fluorescent molecular wire comprising a polymer main chain having a linked conjugated system, wherein to which an optically active substituent is linked to the polymer main chain and is conjugated with the polymer main chain so as to be a conjugatable form, the optically active substituent being represented by the following formula (I):

$$R^{5}$$
 R^{10}
 R^{11}
 R^{9}
 R^{8}
 R^{7}
 R^{2}
 R^{6}
 R^{11}
 R^{11}

where R¹ represents a hydrogen atom or an alkyl group having 1 to 10 carbon atoms R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, and R⁹ represent independently a hydrogen atom, a linear alkyl group having 1 to 30 carbon atoms that may have a substituent, a branched alkyl group having 2 to 30 carbon atoms that may have a substituent, a cyclic alkyl group having 3 to 30 carbon atoms that may have a substituent, an aryl group having 6 to 30 carbon atoms that may have a substituent, or an aralkyl group having 7 to 30 carbon atoms that may have a substituent, and R^3 and R^7 may be bonded respectively to R^4 and R^8 to form an alkylene group having 2 to 60 R^{10} carbon atoms that may have substituent; and and

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 R^{11} represent independently a hydrogen atom or an alkyl group having 1 to 15 carbon atoms that may have a heteroatom, and R^{10} and R^{11} may be bonded to form an alkylene group having 2 to 30 carbon atoms that may have a heteroatom.

Claim 2 (Previously Presented): The fluorescent molecular wire of claim 1, wherein the polymer main chain having a linked conjugated system is a polyarylene structure, a poly(arylene ethynylene) structure, or a poly(arylene vinylene) structure.

Claim 3 (Previously Presented): The fluorescent molecular wire of claim 1, wherein the polymer main chain having a linked conjugated system is a polyphenylene structure, a polythiophene structure, a poly(phenylene thiophenylene) structure, a poly(phenylene ethynylene) structure, or a poly(phenylene vinylene) structure.

Claim 4 (Previously Presented): The fluorescent molecular wire of any one of claims 1 to 3, wherein the optically active substituent is coupled to the polymer main chain having a linked conjugated system via mono- or poly-arylene, mono- or poly-alkylene, mono- or poly-vinylene, or a combination thereof.

Claim 5 (Previously Presented): The fluorescent molecular wire of any one of claims 1 to 4, wherein the optically active substituent is represented by the following formula (II):

$$R^5$$
 R^4
 R^3
 R^2
 R^4
 R^5
 R^6
 R^7
 R^6
(II)

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where R^1 represents a hydrogen atom or an alkyl group having 1 to 10 carbon atoms; and R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , and R^9 represent independently a hydrogen atom, a linear alkyl group having 1 to 30 carbon atoms that may have a substituent, a branched alkyl group having 2 to 30 carbon atoms that may have a substituent, a cyclic alkyl group having 3 to 30 carbon atoms that may have a substituent, an aryl group having 6 to 30 carbon atoms that may have a substituent, and R^3 and R^7 may be bonded respectively to R^4 and R^8 to form an alkylene group having 2 to 60 carbon atoms that may have a substituent.

Claim 6 (Previously Presented): The fluorescent molecular wire of claim 5, which is represented by the following formula (III):

where R¹² and R¹³ represent independently a hydrogen atom, an alkyl group having 1 to 20 carbon atoms, an alkoxy group having 1 to 20 carbon atoms, a di- or mono-alkylamide group having 1 to 20 carbon atoms, or an. alkyl ester group having 1 to 20 carbon atoms; and n is an integer of 5 or more.

Claim 7 (Previously Presented): A chiral sensor comprising the fluorescent molecular wire of any one of claims 1 to 6.